ZIPPY TECHNOLOGY CORP.
10F.,No.50,MINQUAN RD.,
XINDIAN DIST.,NEW TAIPEI CITY,TAIWAN,R.O.C.

RELIABILITY PREDICTION STANDARD REPORT
(Sorted by Part Number)
MIL-HDBK-217F, Notice 2

PRED-FIRST (c) Reliability Prediction Program, BJM Engineering Services

Date: OCT-27-2015
End Item Title : M1D2 SERIES MTBF
End Item Part Number : M1D2-5300V0V(RoHS)(PMBus NP1.2)
M1D2-5300V0V(RoHS)(PMBus NP1.2) MTBF : 267,389
Module Title: ZIPPY TECHNOLOGY CORP
Module Part Number : M1D / MTBF
Power Unit Module : M1D-2300V(RoHS)(PMBus NP1.2)
Environmental Condition: GB
Ambient Temperature: 25℃

RELIABILITY MODELING OF REDUNDANT UNITS

Two Redundant Units:

Two identical units may be connected in parallel, each capable of supplying the total required output. If one unit fails and can be removed from the system （does not interfere with the operation of the other unit）, then the other unit supplies the required output. Using a constant failure rate, the following relations apply.

Total Failure Rate(F) ＝ M λ /(3/2)+B λ ＝ 4.815834/(3/2)+0.529302 = 3.739858

M λ = Main power failure rate ，B λ = Back plane failure rate

M1D2-5300V0V(RoHS)(PMBus NP1.2)(MTBF) ＝ F/10^6 (Hrs) ＝ 1/(3.739858/10^6) ＝ 267,389

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RELIABILITY PREDICTION STANDARD REPORT
(Sorted by Part Number)
MIL-HDBK-217F, Notice 2

Date : OCT-27-2015 Time : 11:57:25
End Item Title : M1D SERIES MTBF
End Item Part Number : M1D-2300V(RoHS)(PMBus NP1.2)
M1D-2300V(RoHS)(PMBus NP1.2) MTBF : 207,648
Module Title : ZIPPY TECHNOLOGY CORP
Module Part Number : M1D / MTBF
Module Reference Designation : M1D
Environmental Condition : GB
Ambient Temperature: 25℃

M1D-2300V(RoHS)(PMBus NP1.2)

ITEM #	Part Number	Ref Desig	Qual Level	Quant	Individual Failure Rate (F/10^6Hrs)	Total Failure Rate (F/10^6Hrs)
1	B105190004	BOM	SPECIAL	1	0.802617	0.802617
2	B105190015	BOM	SPECIAL	1	0.192360	0.192360
3	B105190016	BOM	SPECIAL	1	0.080155	0.080155
4	B105450002	BOM	SPECIAL	1	0.262945	0.262945
5	B105450008	BOM	SPECIAL	1	0.039645	0.039645
6	B200000001	BOM	NMIL	1	0.029860	0.029860
7	B200000364	BOM	NMIL	1	0.032278	0.032278
8	B200000512	BOM	NMIL	1	0.030234	0.030234
9	B200010091	BOM	NMIL	1	0.029325	0.029325
10	B200010098	BOM	NMIL	1	0.000438	0.000438
11	B200010109	BOM	NMIL	2	0.000798	0.001596
12	B200010167	BOM	NMIL	1	0.000404	0.000404
13	B200010212	BOM	NMIL	3	0.029325	0.087975
14	B200020034	BOM	NMIL	1	0.005156	0.005156
15	B200040065	BOM	NMIL	1	0.005967	0.005967
16	B200040073	BOM	NMIL	5	0.005967	0.029835
17	B200040083	BOM	NMIL	1	0.014822	0.014822
18	B200040107	BOM	NMIL	1	0.014822	0.014822
19	B200040110	BOM	NMIL	1	0.014822	0.014822
20	B200050024	BOM	NMIL	1	0.005218	0.005218
21	B200050070	BOM	NMIL	2	0.005218	0.010436
22	B200050081	BOM	NMIL	4	0.005218	0.020872
23	B200060022	BOM	NMIL	1	0.013438	0.013438
24	B200070007	BOM	NMIL	2	0.005731	0.011462

25	B200090005	BOM	NMIL	1	0.001518	0.001518
26	B200110030	BOM	NMIL	4	0.005115	0.020460
27	B200110042	BOM	NMIL	5	0.004650	0.023250
28	B200110120	BOM	NMIL	4	0.004650	0.018600
29	B200110172	BOM	NMIL	2	0.004650	0.009300
30	B200110192	BOM	NMIL	1	0.004650	0.004650
31	B200110202	BOM	NMIL	2	0.004650	0.009300
32	B200110223	BOM	NMIL	7	0.005115	0.035805
33	B200110227	BOM	NMIL	6	0.004650	0.027900
34	B200110235	BOM	NMIL	2	0.004650	0.009300
35	B200110279	BOM	NMIL	2	0.004650	0.009300
36	B200110311	BOM	NMIL	1	0.004650	0.004650
37	B200110313	BOM	NMIL	1	0.004650	0.004650
38	B200110406	BOM	NMIL	1	0.004650	0.004650
39	B200110468	BOM	NMIL	1	0.004650	0.004650
40	B200110498	BOM	NMIL	1	0.004650	0.004650
41	B200110524	BOM	NMIL	1	0.004650	0.004650
42	B200110551	BOM	NMIL	1	0.004650	0.004650
43	B200111011	BOM	NMIL	3	0.004650	0.013950
44	B200160028	BOM	NMIL	1	0.065000	0.065000
45	B200170041	BOM	NMIL	2	0.005940	0.011880
46	B200170055	BOM	NMIL	2	0.002700	0.005400
47	B200180075	BOM	NMIL	1	0.009327	0.009327
48	B200180092	BOM	NMIL	1	0.008923	0.008923
49	B200190065	BOM	NMIL	1	0.014104	0.014104
50	B200190084	BOM	NMIL	1	0.015889	0.015889
51	B200200053	BOM	NMIL	1	0.014056	0.014056
52	B200200069	BOM	NMIL	1	0.006575	0.006575
53	B200200156	BOM	NMIL	3	0.011856	0.035568
54	B200200158	BOM	NMIL	1	0.007791	0.007791
55	B200220021	BOM	NMIL	1	0.002337	0.002337
56	B200220036	BOM	NMIL	2	0.013891	0.027782
57	B200220073	BOM	NMIL	1	0.008751	0.008751
58	B200220074	BOM	NMIL	1	0.006445	0.006445
59	B200230277	BOM	NMIL	1	0.038174	0.038174
60	B200230381	BOM	NMIL	2	0.043351	0.086702
61	B200230417	BOM	NMIL	1	0.030340	0.030340
62	B200230424	BOM	NMIL	1	0.048018	0.048018
63	B200230442	BOM	NMIL	1	0.159500	0.159500
64	B200230443	BOM	NMIL	1	0.020283	0.020283
65	B200240006	BOM	NMIL	1	0.027583	0.027583
66	B200260208	BOM	NMIL	1	0.025245	0.025245
67	B200260281	BOM	NMIL	1	0.025245	0.025245
68	B200260353	BOM	NMIL	1	0.025245	0.025245

69	B200280012	BOM	NMIL	1	0.015958	0.015958
70	B200300420	BOM	NMIL	1	0.003537	0.003537
71	B210090203	BOM	SPECIAL	1	2.091044	2.091044
72	B210160038	BOM	NMIL	1	0.010000	0.010000
73	B210192144	BOM	NMIL	1	0.016567	0.016567

Total Failure Rate (F/10^6Hrs) : 4.815834
Mean Time (in hours) Between Failures (MTBF) : 207,648